Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims of this application:

Listing of Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1.-8. (Cancelled)

9. (Previously presented) A data storage device comprising a conductive probe having a tip; a substrate including a semiconductor portion; a data storage medium including a layer of poled ferroelectric material for storing data, the poled ferroelectric layer on the substrate, between the tip and the substrate, the semiconductor portion and the poled ferroelectric layer forming an electrical junction; and a circuit configured to provide a constant voltage bias to the conductive probe as the conductive probe is dragged across multiple bits stored in the poled ferroelectric layer to perform block and bulk erasure operations.

10.–27.(Cancelled)

28. (Previously presented) A method of reading information from a ferroelectric layer that is on a semiconductor substrate and forms an electrical junction with the semiconductor substrate, the method comprising:

scanning a surface of the ferroelectric layer with a probe having a sharp tip, the tip having a diameter of several nanometers; and

using the probe and the semiconductor substrate to detect polarity reversals at designated locations on the ferroelectric layer, each polarity reversal at a designated location indicating a first stored value at that designated location, each non-reversal of polarity at an expected location indicating a second logic value stored at that designated location;

wherein the probe is used to sense changes in leakage current of the electrical junction between the semiconductor substrate and the ferroelectric layer.

29.–37. (Cancelled)